CLAIMS:

1. A composition for use in eliciting an effective immune response to LHRH said composition comprising a LHRH-diphtheria toxoid conjugate adsorbed to an ionic polysaccharide.

2. The composition according to claim 1 wherein said ionic polysaccharide is DEAE-dextran.

3. The composition according to claim 1 ~~or 2~~ wherein said LHRH is LHRH 2-10 form.

4. The composition according to claim 1 ~~or 2~~ wherein said LHRH is modified LHRH 2-10 form.

5. A pharmaceutical composition comprising a LHRH-diphtheria toxoid conjugate ~~adsorbed to~~ and an ionic polysaccharide together with one or more pharmaceutically acceptable carriers and/or diluents.

6. The pharmaceutical composition according to claim 5 wherein said ionic polysaccharide is DEAE-dextran.

7. The pharmaceutical composition according to claims 5 ~~or 6~~ wherein said LHRH is LHRH 2-10 form.

8. The pharmaceutical composition according to claims 5 ~~or 6~~ wherein said LHRH is modified LHRH 2-10 form.

9. A method of eliciting, in an animal, an effective immune response to LHRH said method comprising administering to said animal an effective amount of the composition of ~~any one of~~ claims 1 ~~to 8.~~

10. A method of eliciting, in an animal, an effective immune response to LHRH said method comprising administering to said animal an effective amount of the composition of ~~any one of~~ claim~~s~~ 1 ~~to 8~~ wherein said immune response inhibits the reproductive capacity of said animal.

11. A method of castrating an animal said method comprising administering to said animal an effective amount of the composition of ~~any one of~~ claim~~s~~ 1 ~~to 8.~~

12. A method of regulating oestrus cycling in a female animal said method comprising administering to said animal an effective amount of the composition of ~~any one of~~ claim~~s~~ 1 ~~to 8.~~

13. A method of inhibiting characteristics induced by the sexual maturation of an animal said method comprising administering to said animal an effective amount of the composition of ~~any one of~~ claim~~s~~ 1 ~~to 8~~.

14. The method according to claim 13 wherein said characteristic is aggression.

15. The method according to claim 13 wherein said characteristic is sexual activity.

16. The method according to claim 13 wherein said animal is a male cat and /or dog.

17. The method according to claim 16 wherein said characteristic is aggression and/or roaming.

18. The method according to claim 13 wherein said animal is a female cat and/or dog.

19. The method according to claim 18 wherein said characteristic is fractiousness, marking of territory, wandering and/or oestrus behaviour.

20. The method according to claim 13 wherein said animal is a male horse.

21. The method according to claim 20 wherein said characteristic is aggression.

22. The method according to claim 13 wherein said animal is a female horse.

23. The method according to claim 22 wherein said characteristic is oestrus behaviour and/or uneven performance.

24. A method of achieving production gains in livestock said method comprising administering to said livestock an effective amount of the composition of ~~any one of~~ claims 1 ~~to 8~~.

25. The method according to claim 24 wherein said production gain is the reduction or elimination of unwanted organoleptic characteristics from the meat of said livestock.

26. The method according to claim 25 wherein said livestock ~~are cattle, pigs, goats~~ and/or sheep.

27. The method according to claim 25 wherein said livestock are pigs and said production gain is the reduction or elimination of boar taint.

28. The method according to claim 24 wherein said livestock ~~are pigs~~.

29. The method according to claim 24 wherein said livestock ~~are cattle~~.

30. A method of inhibiting the growth of cells which are regulated directly or indirectly by LHRH said method comprising administering an effective amount of the composition of ~~any one of~~ claims 1-~~8~~.

31. The method according to claim 30 wherein said cells are human cells.

32. The method according to claim 30 wherein said cells are malignant testicular cells, malignant breast cells, malignant prostate cells, malignant ovarian cells or malignant oncofoetal cells.

33. The method according to claim 30 wherein said cells are hyperplastic cells

34. The method according to claim 33 wherein said hyperplastic cells are prostate cells or endometrial cells.

35. A method of down-regulating the libido of an animal said method comprising administering to said animal an effective amount of the composition of ~~any one of~~ claim$ 1~~-8.~~

36. The method according to claim 35 wherein said animal is a human.

37. Use of the composition of any one of claims 1 to 8 to elicit, in an animal, an effective immune response to LHRH.

38. Use of the composition of any one of claims 1 to 8 to castrate an animal.

39. Use of the composition of any one of claims 1 to 8 to regulate the oestrus cycling of a female animal.

40. Use of the composition of any one of claims 1 to 8 to inhibit characteristics induced by the sexual maturation of an animal.

41. Use according to claim 40 wherein said characteristic is aggression.

42. Use according to claim 40 wherein said characteristic is sexual activity.

43. Use according to claim 40 wherein said animal is a cat and/or dog.

44. Use according to claim 43 wherein said characteristic is aggression, roaming, fractiousness, marking of territory, wandering and/or oestrus behaviour.

45. Use according to claim 40 wherein said animal is a horse.

46. Use according to claim 45 wherein said characteristic is aggression and/or uneven performance.

47. Use of the composition of any one of claims 1-8 to elicit production gains in livestock.

48. Use according to claim 47 wherein said production gain is the reduction or elimination of unwanted organoleptic characteristics from the meat of said livestock.

49. Use according to claim 48 wherein said livestock are cattle, pigs, goats and/or sheep.

50. Use according to claim 47 wherein said livestock are pigs and said production gain is the reduction or elimination of boar taint.

51. Use according to claim 47 wherein said livestock are pigs.

52. Use according to claim 47 wherein said livestock are cattle.

53. Use of the composition of any one of claims 1-8 to inhibit the growth of cells which are regulated either directly or indirectly by LHRH.

54. Use according to claim 53 wherein said cell are human cells.

55. Use according to claim 54 wherein said cells are malignant testicular cells, malignant breast cells, malignant prostate cells, malignant ovarian cells or malignant oncofoetal cells.

56. Use according to claim 54 wherein said cells are hyperplastic cells.

57. Use according to claim 56 wherein said hyperplastic cells are prostate cells or endometrial cells.

58. Use of the composition of any one of claims 1-8 to down-regulate the libido of an animal.

59. Use according to claim 58 wherein said animal is a human.

60. Use of a composition comprising a LHRH-diphtheria toxoid conjugate adsorbed to an ionic polysaccharide in the manufacture of a medicament for eliciting an effective immune response to LHRH.

61. Use of a composition according to claim 60 wherein said ionic polysaccharide is DEAE-dextran.